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Operations

FOOD AND WATER PROTECTION PROGRAM

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OPR: HQ USAF/SGOP (Col Arne Hasselquist)

Certified by: HQ USAF/SGO
(Maj Gen Joseph E. Kelley)

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This instruction implements AFD 10-2, *Readiness, March 1, 1997*; DoDD 2000.12, *DoD Antiterrorism/Force Protection (AT/FP) Program*, April 13, 1999; DoDI 2000.16, *DoD Antiterrorism Standards*, June 14, 2001; DoD O-2000.12-H, *Protection of DoD Personnel, Activities Against Acts of Terrorism and Political Turbulence*, February 19, 1993, DoDI 2000.18 *Department of Defense Installation Chemical, Biological, Radiological, Nuclear and High-Yield Explosive Emergency Response Guidelines*, December 4, 2002, AFI 10-245, *AF Antiterrorism Standards*, June 21, 2001, AFMAN 10-2602, *Nuclear, Biological, Chemical and Conventional (NBCC) Defense Operations and Standards*, May 29, 2003 and Joint Pub 3-07.2, *Joint Tactics, Techniques, and Procedures for Antiterrorism*, March 17, 1998. This instruction establishes responsibilities and guidance for the Active Duty Air Force Food and Water (FW) Protection Program within the Air Force AT Program and integrates security precautions and defensive measures. This Air Force Instruction (AFI) also applies to Air Force Reserve Command (AFRC) and Air National Guard (ANG) host installations. AFRC and ANG tenants on active Air Force installations with in place Memorandum of Agreements and Memorandum of Understanding (MOAs/MOUs) shall participate in the host installation FW Protection program. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFD 37-1, *Information Management* and AFMAN 37-123, *Management of Records* and disposed of in accordance with the *Air Force Records Disposition Schedule (RDS)* located at <https://webrims.amc.af.mil>.

Deliberate food and/or water contamination is an increasing threat to Air Force personnel that must be aggressively addressed through force protection activities. This instruction concentrates on overt and covert attacks on populations, using food or potable water as a potential weapon. This instruction provides guidance to assist commanders, functional area managers, and technicians at fixed installations or deployment areas with recommendations for appropriate actions to counter terrorist and other subversive threats to USAF FW systems or supplies.

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Chapter 1

FW PROTECTION PROGRAM

1.1. Vision: To safeguard food and water (FW) assets through application of Operational Risk Management (ORM) by incorporating deliberate planning and developing enhanced force protection (FP) measures.

1.2. Threat: FW threats come from multiple sources. Nation states, international terrorist groups, hate groups, cults, or disgruntled individuals can attack USAF FW supplies with low cost, easily acquired materials. Individuals and organizations responsible for FW protection must be aware of the potential for covert and overt attacks on FW supplies. For more detailed, location-specific information, consult the Air Force Office of Special Investigations (AFOSI) or base level intelligence organizations.

1.3. Strategy: Vulnerability to attack can be prevented or reduced, and the impact of an actual attack can be diminished using the ORM process. This instruction applies ORM principles to assist military forces in planning and implementing force protection measures to prevent or mitigate potential FW attacks at fixed installations and deployed locations. FW protection must be ensured during contingency operations and at fixed permanent Air Force installations. FW protection involves the following three components:

1.3.1. Identify all FW assets, including any source(s) or procurement systems approved for use by Air Force personnel, including the steps from origination to consumption.

1.3.2. Apply ORM principles to FW protection—identify hazards at each step of the FW distribution systems. Assess and manage the risk for effective FW protection. The goal is optimal security in a cost effective manner (not complete security at any cost). Complete security will rarely be feasible; however, proper implementation of the ORM process can reduce risk to an acceptable level.

1.3.3. Use the utility protection principles of Deterrence, Detection, Delay, and Response (DDDR) to minimize the vulnerability of critical water assets, and of the installation as a whole. Reduction of overall vulnerability requires sufficient implementation of all four DDDR elements.

Chapter 2

RESPONSIBILITIES

2.1. FW Protection Instruction. The following FW Protection Instruction incorporates the DoD standards from DoDI 2000.16, *DoD Antiterrorism Standards*, DoDI 2000.18 *Department of Defense Installation Chemical, Biological, Radiological, Nuclear and High-Yield Explosive Emergency Response Guidelines*, AFI 10-245, *AF Antiterrorism Standards*, AFMAN 10-2602, *Nuclear, Biological, Chemical and Conventional (NBCC) Defense Operations and Standards*, May 29, 2003 and provides Air Force specific guidance. Implementation of DoD and Air Force standards is contained in the following subparagraphs.

2.2. AF FW Protection Policy. Commanders are responsible for implementation of FW Protection policies within their organizations.

2.3. AF Deputy Chief of Staff, Air & Space Operations (AF/XO) , is the office of primary responsibility (OPR) for Air Force FW Protection policy and will develop counter-chemical, biological, radiological, nuclear and high yield explosives (C CBRNE) operational standards, doctrine, and policy. AF/XO will approve all Air Force-wide FW Protection programs and will provide oversight for incorporating C-CBRNE operational concepts and standards into Air Force-level CONOPS, plans, programs, requirements, and budgets.

2.3.1. AF/XO chairs the FP Summit. The Force Protection (FP) Summit, serves as the primary organization to oversee Air Force efforts to improve and coordinate FP matters. For additional details on the FP Summit Charter, refer to AFI 10-245, para 2.1.1.1.1.

2.3.2. AF/XOF chairs the Air Staff FP Steering Group (FPSG). The FPSG is an Air Staff multi-disciplined body chartered to meet semiannually to improve doctrine, policy, tactics, techniques and procedures (TTP) for FP operations. For additional details on the FPSG, refer to AFI 10-245, para 2.1.1.1.2.

2.3.3. The Air Staff FP Working Group (FPWG), chaired by AF/XOFP, is an action officer level group that meets quarterly to work FP issues as directed by the FPSG. For additional details on the FPSG, refer to AFI 10-245, para 2.1.1.1.3.

2.4. Air Force Director of Intelligence, Surveillance and Reconnaissance (AF/XOI):

2.4.1. Establishes policies and guidelines for gathering and disseminating foreign intelligence on international terrorism.

2.4.2. Serves as HAF focal point for intelligence Force Protection policy and terrorism analysis.

2.4.3. Provides the Secretariat and Air Staff with all source analysis regarding capabilities, intentions, or activities of foreign governments or elements thereof, foreign organizations, foreign persons and international terrorist activities of interest to the USAF including threats to FW.

2.4.4. Monitors and determines the significance of FW terrorism incidents.

2.5. The Director of Strategic Security (AF/XOS):

2.5.1. Drafts and coordinates Force Protection policy with the Air Staff FPSG and appropriate functional experts.

- 2.5.2. Develops guidance on antiterrorism (AT) and physical security enhancements.
- 2.5.3. Provides physical security expertise to support protection of FW.
- 2.5.4. Addresses physical security and FW Protection issues in operations plans and publications, where appropriate.
- 2.5.5. Provides support to AFOSI protective services.
- 2.5.6. Reports FP anomalies and suspicious incidents to AFOSI.

2.6. The Director of Homeland Security (AF/XOS-H) Serves as the OPR for Homeland Defense issues including the Air Force Auxiliary

- 2.6.1. XOS-HC provides guidance on military support to civil authorities.
- 2.6.2. XOS-HD provides guidance on Critical Infrastructure Program (CIP).

2.7. Air Force Security Forces Center (FOA-CC):

- 2.7.1. Serves as the OPR for the USAF Force Protection Vulnerability Assessments.
- 2.7.2. Assesses overall completeness of FW portion of USAF Force Protection Vulnerability Assessments from installation through USAF level.

2.8. Director of Counterproliferation (AF/XOS-FC): Serves as the OPR for Counter-Chemical, Biological, Radiological, and Nuclear (CBRN) Operations.

- 2.8.1. Approves C-CBRNE doctrine and policy.
- 2.8.2. Serves as the Air Force point of contact for all C-CBRNE operational initiatives and issues within the Joint, DoD, or Interagency communities.

2.9. Air Force Surgeon General (AF/SG) :

- 2.9.1. Serves as the OPR for total force health protection.
- 2.9.2. Ensures force protection, antiterrorism and FW Protection requirements and considerations are incorporated into Air Force Medical Service planning and programming.
- 2.9.3. Establishes and advocates AF policy for protecting public health.
- 2.9.4. Establishes a planning, programming and budgeting mechanism to advocate for and receive funds to conduct the safe drinking water surveillance program.

2.10. Assistant Surgeon General for Healthcare Operations (AF/SGO) :

- 2.10.1. Assists AFMSA to develop medical operational guidance for CBRNE identification and control, mass casualty planning, comprehensive health (disease/environmental/occupational) surveillance programs, vulnerability assessments and other appropriate preventive medicine measures to include FW protection.
- 2.10.2. Develops AF policy for food and drinking water surveillance.
- 2.10.3. Attends the FPSG and provides personnel to attend the FPWG.

2.10.4. Provides a subject matter expert for the AF Vulnerability Assessment Teams.

2.11. Air Force Medical Support Agency (AFMSA).

2.11.1. Establishes AF-unique food standards IAW FDA Food Code to protect the health of AF personnel.

2.11.2. Establishes, in conjunction with Air Force Civil Engineer (ILE), AF drinking water standards and assessment criteria to protect the health of AF personnel.

2.11.3. Validates Major Command (MAJCOM) SG budget submittals for conducting the food surveillance and the safe drinking water surveillance program.

2.11.4. In conjunction with Air Force Deputy Chief of Staff for Installations and Logistics (AF/IL), oversees programming and execution of safe drinking water and food service surveillance programs throughout the AF.

2.12. AF Institute for Operational Health (AFIOH)

2.12.1. Develops technical guidance and provides technical consultations regarding safe FW quality. Conducts FW vulnerability assessments as requested on a fee-for-service basis.

2.12.2. Provides specialized field surveys and studies to assist installations with FW quality issues specific to AT/FP. Services can be provided through in-house or contract resources.

2.12.3. Provides summary of base support activities to parent MAJCOM.

2.12.4. Offers in-house or contract laboratory analytical services to installations. Ensures analyses are performed by laboratories certified by appropriate regulatory authorities and are IAW regulatory requirements. Coordinates with AF installations using AFIOH in-house analytical capability regarding scheduling of their drinking water sample submissions.

2.12.5. Provides guidance to installations on collecting and preserving of FW samples, sampling equipment, instruments, methods, calibration, and interpretation of analytical results.

2.12.6. Coordinates base visits with and provides summary of base support activities to parent MAJCOM following visits

2.13. USAF School of Aerospace Medicine (USAFSAM): Incorporates FW vulnerability assessment training into curriculum, as appropriate.

2.14. Air Force Deputy Chief of Staff for Installations and Logistics (AF/IL): Is responsible for programming for supply and equipment requirements necessary for implementing Air Force FW Protection policy requirements relative to installations.

2.14.1. Air Force Civil Engineer (AF/ILE):

2.14.1.1. Implements the C-CBRNE non-medical passive defense aspects of FW Protection as part of the Full Spectrum Threat Response (FSTR) program, outlined in AFD 10-25, Full-Spectrum Threat Response..

2.14.1.2. Ensures AF drinking water systems are properly designed, constructed, operated and maintained IAW AFMAN 32-1071 and AFI 32-1067 to provide adequate supplies of safe drinking water to AF personnel.

2.14.1.3. Provides standards and criteria for facilities/infrastructures to meet FW Protection requirements.

2.14.1.4. Ensures compliance with applicable drinking water regulatory requirements or standards.

2.15. Air Force Civil Engineer Support Agency (HQ AFCESA)

2.15.1. Issues drinking water system design and operations and maintenance guidance, including AT/FP criteria.

2.15.2. Provides engineering studies, design of water distribution systems and treatment plants, and associated system components; Operations Maintenance, and Training Assistance Programs (OMTAP), and contract support.

2.15.3. Provides MAJCOMs and installations with AT/FP technical expertise and guidance related to structures, utilities and associated infrastructure.

2.15.4. Provides the Air Staff, MAJCOMs and installations with FSTR technical expertise and reach back support and incorporates base populace FW Protection tactics, techniques and procedures within the appropriate FSTR training courses in AFI 10-2501, FSTR Planning and Operations.

2.16. Air Force Center for Environmental Excellence (AFCEE) : Provides an avenue to contract services for accomplishing engineering studies, design of water distribution systems and treatment plants, and OMTAP, as they relate to AT/FP.

2.17. Air Force Director of Services (AF/ILV):

2.17.1. Serves as the Air Force OPR for FW Protection processes concerning food handling and distribution in coordination with the Defense Support Center Philadelphia.

2.17.2. Ensures Services is included in all current and newly developed FW Protection policies/issues.

2.17.3. Incorporates ORM and FP measures into food handling procedures.

2.18. Air Force Services Agency (HQ AFSVA)

2.18.1. Implements policy and procedure from the FW Protection processes concerning the entire food life cycle.

2.18.2. Responsible for all appropriated food service support and combat rations in the AOR.

2.18.3. Ensures personnel hiring practices, installation security recommendations and FW vulnerability assessment recommendations are implemented.

2.18.4. Serves as the Air Force liaison with the Defense Logistics Agency (DLA) and DSCP for issues related to FW protection.

2.19. Secretary of the Air Force Public Affairs (SAF/PA) : Enhances public awareness on FW Protection and informs the public at the first indication of a terrorist incident. Also, develops risk communication strategies during and after any incident involving FW Protection.

2.20. Air Force Office of the Judge Advocate General (AF/JA) : Provides legal support on operations law issues affecting FW Protection through AF/JAO and on environmental law issues affecting FW Protection through AFLSA/JACE.

2.21. Air Force Office of Special Investigations (AFOSI) :

2.21.1. Conducts counterintelligence (CI) activities, to include operations, investigations, collections, services, production, and analysis of threats from terrorism.

2.21.2. Liaison and the AF single point of contact with federal, state, local, and foreign nation law enforcement (LE), CI and security agencies for terrorism and other matters falling within the AFOSI mission.

2.21.3. Provides warning of potential terrorist or unconventional warfare activities that are threats to Department of the Air Force personnel, property and FW assets worldwide.

2.21.4. Deter, detect or prevent internal and external systems compromise and failure through operational LE/CI operations.

2.22. Defense Commissary Agency (DECA):

2.22.1. Establishes policy for protection of FW procured and sold at all Air Force commissaries.

2.22.2. Provides resources and personnel to implement FW protection measures upon direction of the FPWG.

2.22.3. Implements specific recommendations of FW Vulnerability Assessments, including hiring and personnel practices.

2.23. Army & Air Force Exchange Service (AAFES)

2.23.1. Establishes policy for the protection of FW procured and sold by AAFES on AF installations.

2.23.2. Implements FW protection measures upon direction of the FPWG.

2.23.3. Implements specific recommendations of the FW Vulnerability Assessments.

2.24. MAJCOM: OPR for organizing, training and equipping forces and installations to meet all FP standards including FW Protection.

2.24.1. Establishes and maintains a FPWG IAW AFI 10-245.

2.24.2. Ensures Higher Headquarters (HHQ) Vulnerability Assessments (VA), including detailed FW criteria, are conducted at each installation at least every three years. A VA conducted by a DTRA VAT, AF VAT, or MAJCOM VAT satisfies the requirement for HHQ VA.

2.24.3. In active duty component, monitors program element (PE) 28047 and coordinates funding for FW Protection initiatives with Air Staff functional experts for XO approval. In the Reserve component, programming is accomplished using the Program Objective Memorandum (POM) process.

2.25. Installation Commanders: OPR for complying with Air Force and MAJCOM guidance to meet FP minimum standards, including FW Protection, and prioritizing programmatic requirements for FW protection.

2.25.1. Establish FPWGs or use the Installation Security Council (ISC) to serve as the commander's primary advisory body on FW Protection program management IAW AFI 10-245.

2.25.2. Establish Force Protection Conditions (FP CONS) for FW protection. IAW DoDI 2000.16, commanders at all levels, both stationary and in transit, shall develop site-specific measures or action tasks for each Force Protection Condition which supplement those measures/actions enumerated for each Force Protection Condition as listed within Appendix A of DoD 2000.12-H (reference (c)). An AT Plan with a complete listing of site-specific AT measures, linked to a Force Protection Condition, will be classified, as a minimum, CONFIDENTIAL. When separated from the AT Plan, specific AT measures and Force Protection Conditions remain FOR OFFICIAL USE ONLY. These measures will change as the threat situation increases from Force Protection Condition Normal to Force Protection Condition Delta.

2.25.3. Develop full working knowledge of FW Protection policies and standards and take appropriate measures to protect DoD personnel to reduce the vulnerability to enemy attack or terrorist use of CBRNE.

2.25.4. Ensure that HHQ FW VAs are conducted at least every three years and local FW VAs are conducted or updated at least annually, except for those years when a HHQ VA is conducted, and that these VAs include FW criteria.

2.25.5. Ensure all FW protection vulnerabilities are considered for inclusion into the Vulnerability Assessment Management Program (VAMP) for tracking and prioritization.

2.25.6. Develop FW Protection procedures and checklists and when appropriate coordinate with federal, state, and local regulatory agencies, public and private purveyors of water, and the surrounding community. For Water Vulnerability Assessments (WVAs), AFIOH's, "Water Vulnerability and Risk Assessments for Potable Water Assets" document may be used.

2.25.7. Protect FW from contamination, maintain personal cleanliness, and properly dispose of contaminated waste following attacks with nuclear, biological, or chemical weapons. FW sources are good targets for covert contamination with chemical or biological agents. Reference AFMAN 10-2602.

2.25.8. Establish secure and reliable sources of subsistence. Monitor the safety and security of the food procurement, delivery, preparation, and service processes. Reference AFMAN 10-2602, NBCC Defense Operations and Standards.

2.25.9. Direct units to store potable water within unit work areas to support unit operations for a minimum of 24-hours without resupply.

2.25.10. At least annually, ensure response exercises are conducted to include in-garrison and deployed scenarios that simulate damage to or contamination of the food distribution and/or potable water systems.

2.26. Mission Support Group Commander (MSG/CC): The MSG/CC is responsible for installation security, base civil engineering, services squadron, contracting squadron and other base support agencies both in fixed and contingency support operations.

2.27. Security Forces Commander: OPR for overall installation security, including LE services, resource protection, and generating FP policies designed to protect personnel and resources.

2.28. Base Civil Engineer (BCE): BCE is the OPR for the physical plant on the Air Force Installation or at a deployed location, as it relates to AT/FP, as well as FSTR and C-CBRNE passive defensive operations. Specific responsibilities are outlined below:

2.28.1. Designs and constructs drinking water systems IAW AFI 32-1067 Water Systems, AFMAN 32-1071 Security Engineering, and MIL HDBK 1005/7 Water Supply System.

2.28.2. Operates and maintains drinking water systems IAW AFI 32-1067 Water Systems and MIL HDBK 1164 Operation and Maintenance of Water Supply Systems.

2.28.3. Designs plumbing systems IAW AFI 32-1066 Plumbing Systems, and UFC 3-420-01FA Design: Plumbing. Operates and maintains plumbing systems and conducts a cross connection control and backflow prevention program IAW AFI 32-1066 Plumbing Systems to effectively identify, isolate, and correct potential sources of contamination in the water supply system.

2.28.4. Develops and maintains an adequate and reliable supply of safe drinking water for the base populace and protects supplies from intentional and unintentional contamination. Develops and implements the Wellhead Protection Plan (if applicable), Water Master Plan, and an Emergency Operations or Contingency Plan in coordination with Bioenvironmental Engineer (BEE) using guidance in DoD Wellhead protection plan, or other local requirements.

2.28.5. Conducts drinking water treatment process control monitoring IAW AFI 32-1067, and records drinking water production rates, periodic disinfectant residual, fluoride (if applied), and pH measurements. Ensures a detectable disinfectant residual level, or higher level if required by regulatory authority, is maintained in all parts of the installation drinking water distribution system.

2.28.6. Corrects or mitigates water treatment and distribution system deficiencies identified through internal assessment, monitoring, or inspection by regulatory agencies, and maintains records of corrective actions.

2.28.7. Coordinates with and/or notifies Bioenvironmental Engineer (BEE) and appropriate regulatory authority, if required, regarding issues/events that could negatively affect overall water quality (e.g., line breaks, new connections, distribution system maintenance, water treatment plant repairs, chlorine, fluoride, and other treatment process application problems). If contacting a regulatory authority is contemplated, first notify the servicing staff judge advocate. Works closely with BEE to restore the water distribution system to full service.

2.28.8. Develops contingency support plans and base recovery actions related to water systems IAW applicable AF policy and coordinates plans/actions with appropriate base agencies.

2.28.9. Ensures an appropriate and incremental level of employee screening and security clearance is conducted on water system operators, proportionate to the FW Safety/Protection (SP) assessment.

2.29. Services Commander (MSG/SVS):

2.29.1. Ensures recommendations identified in FW VAs are implemented to the maximum practical extent.

- 2.29.2. Ensures an appropriate and incremental level of employee screening and security clearance is conducted proportionate to the FW Protection assessment.
- 2.29.3. Protects and disperses FW assets to ensure continuity of operations IAW AFMAN 10-2602, NBCC Defense Operations and Standards.
- 2.29.4. Coordinates the purchase, storage, distribution and re-supply of bottled water in-garrison and at deployed locations, in conjunction with BEE.
- 2.29.5. Incorporates base populace, commander and functional area FW Protection actions and responsibilities into base FSTR Plan 10-2.

2.30. Contracting Squadron :

- 2.30.1. Contracting ensures appropriate quality control procedures are in place for contracting food and water using the Approved Source List. During operations where approved sources are not available, contracting will consult with the Public Health Officer for Food Procurement and the Bioenvironmental Engineer for bottled water.
- 2.30.2. Contracting Officers will insert the appropriate base access clause in contracts for food and water.

2.31. Medical Group Commander (MDG/CC):

- 2.31.1. OPR for providing medical support to the base community or to US military forces at a deployed location, to include implementation of Safe Drinking Water Act (SDWA) surveillance/monitoring requirements and requirements of the US Food and Drug Administration and the International Bottled Water Association, as applicable.
- 2.31.2. Performs FW surveillance to protect public health. Provides data and technical support to physicians and public health personnel investigating potential FW related illnesses. Maintains records of FW surveillance in accordance with AF or primacy requirements. Ensures certified laboratories perform analyses using required analytical methods.
- 2.31.3. Ensures BEE implements water vulnerability assessment program IAW federal, state and local regulations, AFI 48-144 and this AFI. The base BEE, under the purview of the installation threat working group, will review the Water Vulnerability assessment every year for currency and update assessment as needed.
- 2.31.4. Ensures required FW vulnerability reviews/validation and assessments are completed using criteria approved by AFMSA.
- 2.31.5. Advises commander on opportunities to increase protection of FW resources and alternative management practices to enhance overall FW security.
- 2.31.6. Performs sampling and evaluation of bottled water in deployed locations following guidance outlined in AFMAN 48-138, Sanitary Control & Surveillance of Field Water Supplies when no VET-COM approved source of bottled water is available.
- 2.31.7. Plans, programs, and submits budget requests for funds to accomplish FW Protection program surveillance requirements.

2.32. Staff Judge Advocate: Provides legal advice on all matters related to force protections and FW protection, including advise concerning activities governed by the SWDA and its related regulations.

2.33. Public Affairs Office: Develops (with the assistance of the BEE, SG and CE) and disseminates information to address public health and security concerns.

Chapter 3

FW PROTECTION

3.1. Prevention and Control Measures: The actions outlined below reflect minimum requirements to promote FW protection for each stage of the food and drinking water production process. These actions will prevent or mitigate intentional introduction of contaminants into the food or water supply at an installation:

3.2. FW Protection :

3.2.1. Eliminate Opportunity for Forced Entry: Defeat of forced entry tactics relies not only on physical barriers, but also detection (electronic sensors, etc.) and interception by a responding force. The purpose of physical barriers is to delay an intruder long enough for a responding force to successfully apprehend the intruder.

3.2.2. Eliminate Potential for Insider Compromise: The basic strategy for defeating covert entry or insider compromise tactics is to keep people from entering areas that they should not enter. This strategy relies on the use of restricted entry to certain areas, owner user security procedures and/or detection systems. Reference AFI 31-101, The Air Force Installation Security Program, Controlled Area section for guidance on systems and procedures.

3.2.3. Establish General Security Procedures for Food /Water Suppliers: Local managers/operators should, and installation personnel must, establish proportional security procedures commensurate with threat levels (both local FPCON and National levels).

3.2.4. Security Procedures and Probationary Periods for Hiring: FW Vulnerability Assessment teams should work closely with AFOSI and SF to gather Human Intelligence data in their Area of Responsibility (AOR). Enhanced situational awareness of the local population will result in a better understanding and selection of people hired locally.

3.2.4.1. Obtain work references and investigate prospective hires.

3.2.4.2. Perform criminal background checks.

3.2.4.3. Place new employees on day shift with increased oversight during the mandatory 30-day probationary period. During the hiring process obtain authorization to conduct random drug testing.

3.2.4.4. At overseas locations include current threats to US interests (FPCON, State Department warnings, etc) when conducting background checks on contract personnel.

3.2.5. Identification: Issue photo identification badges with identification number. Utility personnel will utilize sign in and sign out logs.

3.2.6. Restricted access: Limit access to those areas unnecessary for the employee's position (e.g. card entry to sensitive areas, cypher locks). Reference AFI 31-101, The Installation Security Plan, Controlled Area section for guidance on systems and procedures.

3.2.7. Personal items: Limit personal items allowed in establishment.

3.2.7.1. Prohibit lunch containers, purses, gym bags, thermoses, drink containers, etc., in food handling areas.

3.2.7.2. Provide locks and locker areas for all employees. Establish authority (during hiring process etc.) to enter lockers for periodic safety and security reviews. Metal mesh lockers provide additional security because contents are visible.

3.3. Security Requirements Unique to Food:

3.3.1. Ensure Food Security vulnerabilities; processes and procedures are consistent with findings/recommendations contained in current VAs.

3.3.2. Food Processing: Improve onsite security programs, such as limiting entry and exit, implementing sign-in and sign-out logs, securing bulk storage containers and mounting video surveillance cameras at key internal processing hubs.

3.3.3. Food Sources: External Source (Host Nation Owned/Deployed Locations)

3.3.3.1. When the food source is not owned/operated by US forces and/or is not physically located on a US-controlled installation, considerations for safeguarding the source include: Owner-user or detailed security guards, detection equipment, barriers, and limited access. Every effort should be made to only purchase FW that is on the Approved Sources Listing by the US Army Veterinary Services and/or the US Air Force Local Approved List. The Approved Sources Listing changes frequently, so managers should remain vigilant to changes. Approved source list is located at: <http://vets.amedd.army.mil/dodvsa/index.html>

3.3.3.2. To preclude mission degradation Commanders must ensure all FW that is purchased from a non-approved source, due only to unavoidable operational necessity, is inspected by US Army Veterinary Corps personnel or US Air Force Public Health personnel or by a trained independent medical technician (IDMT). Insert provisions in contracts to ensure the physical security of food and water from the point of purchase to the point of receipt on the AF installation.

3.3.3.3. If none of the above considerations are viable options, and the increased risk warrants it, only US approved/inspected food should be used for consumption (i.e. MREs).

3.3.4. Food Transportations/Distribution Sources. When FPCON conditions warrant contracting will develop a contract clause that addresses security/transportation of food/water.

3.3.4.1. Owner/Receiving Agencies will:

3.3.4.1.1. Inspect incoming ingredients, compressed gas, packaging, labels, and product returns for signs of tampering or counterfeiting.

3.3.4.1.2. Ensure contracts require transportation companies to conduct background checks on drivers and other employees with access to the product (comply with state and local laws in doing this).

3.3.4.1.3. Ensure contracts require locked and sealed vehicles/containers, and require seal numbers to be identified on shipping documents. Verify shipping seals with shipping papers.

3.3.4.1.4. When utilizing external food sources, consider security escorts, equipped with, at a minimum, 2-way radios and more thorough inspections upon arrival at the U.S. installation.

3.3.4.1.5. Ensure the traceability of ingredients, compressed gas, packaging, and, salvage products, rework products, and product returns.

3.3.4.1.6. Include in purchasing contracts a requirement that suppliers will have commodity codes and expiration dates with written explanations provided for recalls and other food safety actions.

3.3.4.1.7. Use operating procedures that permit subsequent identification of source of ingredients, compressed gas, packaging, labels, etc.

3.3.4.1.8. Keep timely and accurate inventory of ingredients, packaging, labels, investigate missing stock or other irregularities and report any problems to AFOSI.

3.3.5. Security for Rations: Owning agencies will implement increased FW protection as FPCON conditions warrant. Owning agency is defined as DLA/DSCP while in transit. Upon receipt the responsibility for the securing of rations/water shifts to the gaining organization.

3.3.5.1. Keep timely and accurate inventory of rations and other finished products.

3.3.5.2. Investigate missing stock or other irregularities and report any problems to AFOSI.

3.3.5.3. Develop a contract clause that addresses security/transportation of food and water to include in contracts for shipping (vehicles and vessels) a requirement that transporters practice appropriate security measures.

3.3.5.4. Perform random inspection of storage facilities, vehicles, containers, etc.

3.3.5.5. Develop a contract clause to require transportation companies and warehouses to conduct background checks on staff (drivers/warehouse personnel; state and local laws may apply).

3.3.5.6. Develop a contract clause that requires locked and sealed vehicles/containers, and identify seal number on shipping documents.

3.4. Security Requirements Unique to Water:

3.4.1. General Requirements

3.4.1.1. Utility operators will furnish up to 24-hour duty coverage for water utility operations conducted inside the installation perimeter (fenceline) as warranted by current FPCON.

3.4.1.2. Owner User will patrol all water access points and report all suspicious activity immediately to security forces.

3.4.1.3. Utility operators make up to daily visits to all water access points and critical components, as warranted by current FPCON.

3.4.1.4. CE and utility operators will maintain a current map of the entire water system, including all operable isolation valves and backflow prevention devices.

3.4.1.5. All installation organizations involved in protecting the water system shall apply the industry-accepted principles of Deterrence, Detection, Delay, Response (DDDR) to safeguard production, treatment, storage and distribution assets.

3.4.1.6. Verify the integrity of potable water supply and distribution systems following attacks with NBC or conventional weapons.

3.4.2. Civil Engineering Protection of Water Supplies :

3.4.2.1. Ensure wellheads located inside the installation perimeter (fenceline) are hardened and sealed; controls should be secured

3.4.2.2. Ensure contracts IAW DoD Directive 5160.54, includes a contractual requirement for cooperation in vulnerability assessments and assurance planning when contracting for private sector water providers and consider all hazard assurance of service when awarding contracts.

3.4.2.3. Ensure the line(s) supplying water are equipped with equipment to sample and flush the line as necessary before it enters the base system.

3.4.2.4. Ensure an alternative water source that is safe and reliable and in adequate quantity is available. Ensure equipment and trained personnel necessary for use of the alternative water sources is available.

3.4.2.5. Ensure a Source Water Assessment to determine safety and reliability of source water has been conducted for all wells and surface water sources.

3.4.2.6. Ensure wells are equipped with proper equipment to allow sampling, flushing, and to prevent backflow.

3.4.3. Water Treatment (CE):

3.4.3.1. Ensure appropriate written operations and maintenance (O&M) manuals are available.

3.4.3.2. Ensure treatment backup systems are available.

3.4.3.3. Treatment systems should be equipped to alert operators in the event of failure or malfunction.

3.4.4. Water Storage Tanks (CE):

3.4.4.1. Storage tanks must be inspected as specified in MIL-HDBK 1164 for structural defects, deterioration, biofilm, and other problems.

3.4.4.2. Tanks interiors should be professionally cleaned and sanitized as specified in MIL-HDBK 1164, or more frequently as warranted.

3.4.4.3. Tanks should be equipped with sampling taps to facilitate testing and isolation.

3.4.4.4. Ensure all vents, overflow discharge ports and all other openings are properly locked, sealed or screened to prevent intentional/unintentional introduction of contaminants and to prevent birds, rodents, etc. from entering.

3.4.4.5. Ensure access ladders, gates, etc., remain secured at all times.

3.4.5. Water Distribution Networks (CE):

3.4.5.1. Ensure an effective cross connection and backflow prevention program is established.

3.4.5.2. Carry out unidirectional flushing program IAW AFI 48-144.

3.4.5.3. Exercise all isolation valves annually and ensure appropriate precautions are implemented to prevent unauthorized access to valves.

3.4.6. Water System Monitoring (CE/BE):

3.4.6.1. Ensure adequate treatment (CE) and system monitoring (BE) are conducted to establish baseline water characteristics and identify significant changes in water quality parameters.

3.4.6.2. Ensure increased monitoring is conducted during conditions of high threat and following a suspected compromise to the water system.

3.4.7. Off Base Supply Security:

3.4.7.1. Include as part of the contract statement of work or performance work specification a requirement that contract water suppliers and haulers conduct background checks on water plant personnel, drivers, and other employees with access to the water.

3.4.7.2. Develop a contract clause that requires locks and seals on water trucks and trailers.

3.4.7.3. US Army Veterinary Command (VETCOM) is responsible for the approval of bottled water sources. Every effort should be made to procure bottled water from approved sources as listed in the approved sources list. The approved source list is located at

<http://vets.amedd.army.mil/dodvsa/index.html>

3.4.7.4. When utilizing off installation tanked or bottled water suppliers, ensure the contract is written to allow the owner-user or detailed security escorts equipped with, at minimum, 2-way radios and more thorough inspections upon arrival at the U.S. installation.

3.5. Training and Exercises. The Installation Commander will ensure the base designs and carries out exercise scenarios including applicable natural disasters, major accidents and attacks, and terrorist use of CBRNE and other terrorist incidents to include FW protection response exercises.

3.5.1. At least annually, response exercises will be conducted to include in-garrison and deployed scenarios that simulate damage to or contamination of the food distribution and potable water systems.

3.5.2. Response procedures will be integrated into appropriate annexes of the CE Contingency Response Plan (CRP) and Medical Contingency Response Plan (MCRP).

3.5.3. Installation training and exercise requirements are identified in AFI 10-2501, *Full Spectrum Threat Response Planning and Operations*. Contingency training and exercise requirements for CE and medical personnel are addressed in AFI 10-211, *Civil Engineer Contingency Response Planning* and AFI 41-106, *Medical Readiness Planning and Training*.

3.5.4. Security Training

3.5.4.1. Provide staff with training in FW security procedures and inform them to report all unusual activities.

3.5.4.2. Place newly hired employees on day shift with increased oversight during mandatory 30-day probationary period.

3.6. Vulnerability Assessments Subject matter experts including public health officers (PHO), BEE, security forces, civil engineers, etc., assigned to the higher headquarters or installation vulnerability assessment teams will conduct inspections at installations. Installation level assessments are required annually when a HHQ assessment is not performed. Reference AFI 10-245, paragraph 2.26.2.1.1.

3.6.1. Assessments will be conducted as part of an installation security or AT plan and performed every three years by either the MAJCOM, DTRA, or an AF level team. HHQ may arrange for contractors to conduct the vulnerability assessment. In this case close coordination with affected base agencies is required.

3.6.2. Site-specific procedures will be developed to inspect FW facilities and processes and ensure adequate security measures are in place or practiced.

3.6.3. The base BEE, under the purview of the installation threat working group, will review the Water Vulnerability assessment every year for currency and update assessment as needed.

3.6.4. The base PHO, under the purview of the installation threat working group, will review the Food Vulnerability Assessment every year for currency and update assessment as needed.

3.6.5. In a deployed location, installation personnel will consider FW vulnerability throughout the "open the base" and "sustain the base" time periods." FW vulnerability assessments should be conducted within the first week of BE and PH personnel arriving at a deployed location and should be updated, at a minimum, during each rotation and when significant mission changes occur.

3.7. Contingency Response Plans Establish execution checklists in "grab and go" binders for the response team and control center position per AFPAM 10-219 Vol 1. Include all relevant maps, including a map of all valve locations and left- or right-hand turn configuration, if applicable.

3.7.1. AFI 10-211 requires the contingency plan list specific contacts at other DoD installations, the types and quantities of equipment they possess, and the restrictions on their availability. Applicable Support Agreements and Contracts are also required.

3.7.2. Ensure adequate resources are available to store & distribute potable water in a contingency situation. This may include: water storage containers (bladders/buffaloes/etc.), water distribution trucks (AFP 10-219, Table 4.3), or bottled water supplies. Consider reverse osmosis water purification units (ROWPUs) if requirements dictate.

3.7.3. CE in consultation with the BEE will devise a Water Demand Reduction Plan to be maintained in an appropriate Annex of the CE CRP (e.g., Annex N) to address emergencies or other situations where restricted water use may be necessary, in accordance with AFP 10-219, Vol. 1.

3.7.4. Ensure a mechanism exists to provide priority analyses and turn-around with a state approved contract laboratory (as required).

3.7.5. BE will ensure adequate quantities of serviceable bacteriological and chemical water test kits are available to conduct monitoring during contingency operations. BE will develop a list of parameters to monitor for basic water quality that account for local threat scenarios. Expired kits will be used for training.

3.7.6. CE will establish, in conjunction with SF, written procedures for increased safeguarding of the drinking water system during elevated FPCON, e.g., increased surveillance and monitoring. These procedures will be incorporated into the base CE CRP.

3.7.7. BEE and Public Health will establish increased FW monitoring and surveillance schedules based on elevated threat levels, as determined by the Force Protection Working Group.

3.7.8. Public Health will establish procedures for identifying and reporting FW related illnesses.

3.7.9. The BEE and PHO will establish Food/Water collection procedures that meet the requirements of a certified analytical laboratory and ensure procedures are followed for sample collection, preservation, testing and transport.

3.7.10. Incorporate base populace, commander and functional area FW protection actions and responsibilities into base FSTR Plan 10-2

RONALD E. KEYS, Lt General, USAF
DCS/Air and Space Operations

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFPD 10-2, *Readiness*, 1 Mar 97

AFPD 10-24, *Air Force Critical Infrastructure Protection*, 1 Dec 99

AFPD 10-25, *Full Spectrum Threat Response Planning and Analysis*, 18 Jul 02

AFPD 10-26, *Counter- Nuclear, Biological, and Chemical Operations*, 6 Feb 01

AFI 10-211, *Civil Engineer Contingency Response Planning*, 1 Jul 98

AFP 10-219, Vol. 1, *Contingency and Disaster Planning*, 1 Dec 95

AFH 10-222, Vol. 3, *Guide to Civil Engineer Force Protection*, 1 Jun 97

AFH 10-222, Vol. 9, *Guide to Reverse Osmosis Water Purification Unit Installation and Operation*, 1 May 99

AFI 10-245, *Air Force Antiterrorism (AT) Standards*, 21 June 2002

AFI 10-2501, *Full Spectrum Threat Response Planning and Operations*, 24 Dec 02

AFI 14-119, *Intelligence Support to Force Protection*, 6 Jan 04

AFMAN 10-2602, *NBCC Defense Operations Standards*, 1 Dec 02

AFI 31-101, *The Air Force Installation Security Program*, 1 Mar 03

AFJI 31-102, *Physical Security*, 31 May 91

AFI 32-1066, *Plumbing Systems*, 4 Mar 1994

AFI 32-1067, *Water Systems*, 25 Mar 1994

AFMAN 32-1071, Volumes 1 -4, *Security Engineering*

AFI 34-239 *Food Service Management*, 1 May 1998

AFI 41-106, *Medical Readiness Planning and Training*, Feb 94

AFI 41-106, Sup. 1, *Medical Readiness Planning and Training*, 5 Jan 00

AFI 48-116, *Food Safety Program*, 19 July 94

AFI 48-119, *Medical Service Environmental Quality Programs*, 25 Jul 94

AFI 48-144, *Safe Drinking Water Surveillance Program*, 19 Mar 03

AFP 90-902, *Operational Risk Management (ORM) Guidelines and Tools*, 14 Dec 00

AFPD 37-1, *Information Management*, 19 Nov 93.

AFMAN 34-240, *Food Service Program Management*, 1 April 1998

AFMAN 37-123, *Management of Records*, 31 Aug 04.

(AF) Institute for Environment, Safety, and Occupational Health Risk Analysis (IERA), *Water Vulnerability and Risk Assessments for Potable Water Assets*, IERA-RS-BR-TR-2003-0002, Brooks AFB, TX, Mar 03

American Water Works Association (AWWA), *Emergency Planning for Water Utility Management*, Manual M19, 3rd ed., Denver, 1999

AWWA Journal, *The Who, What, Why, and How of Counterterrorism Issues*, Vol. 93, No. 5, pp. 78-85, May 01

Deputy Secretary of Defense Memo, *Preparedness of U.S. Military Installations and Facilities Worldwide Against Chemical, Biological, Radiological, Nuclear, and High-yield Explosive (CBRNE) Attack (U14000-02)*, 5 Sep 02

DoDI 2000.16, *DoD Antiterrorism Standards*, 14 Jun 01

DODI 2000.18, *Department of Defense Installation Chemical, Biological, Radiological, Nuclear, and high yield Explosive Emergency Response Guidelines*, 4 Dec 02

DoD 4715.5-G, *Overseas Environmental Baseline Guidance Document*, 15 Mar 00

DoDD 5160.54, *Critical Asset Assurance Program (CAAP)*, 20 Jan 98

DoD 5200.8-R, *Security of DoD Installations and Resources*, 25 Apr 91

DoD MIL-HDBK 1005/75, *Water Supply Systems*, 1 Sep 1999

DoD MIL-HDBK-1164, *Operations and Maintenance of Water Supply Systems*, 3 Mar 97

Joint Publication 1-02, *DOD Dictionary of Military and Associated Terms*, 9 Jun 2004

National Advisory Committee on Microbiological Criteria for Foods, *Hazard Analysis and Critical Control Point Principles and Application Guidelines*, 14 Aug 97

US Environmental Protection Agency (EPA), *Code of Federal Regulations*, Title 40, Parts 141 & 143, Washington, D.C., 1 Jul 00

US General Accounting Office (GAO), *Combating Terrorism: Action Taken but Considerable Risks Remain for Forces Overseas*, GAO/NSIAD-00-181, Washington, D.C., Jul 00

United States Public Health Code - 1997

Zilinskas, Raymond A, *Assessing the Threat of Bioterrorism*, Monterey Institute of International Studies, 20 Oct 99

Abbreviations and Acronyms

CBRNE—chemical, biological, radiological, nuclear, explosives

DDDR—deterrence, detection, delay, and response

FP—Force protection

FPSG—force protection steering group

FW—food and water

ORM—Operational Risk

Terms

Force protection (FP)—Actions taken to prevent or mitigate hostile actions against Department of Defense personnel (to include family members), resources, facilities, and critical information. These actions conserve the force's fighting potential so it can be applied at the decisive time and place and incorporate the coordinated and synchronized offensive and defensive measures to enable the effective employment of the joint force while degrading opportunities for the enemy. Force protection does not include actions to defeat the enemy or protect against accidents, weather, or disease. Also called FP. (JP 1-02) [An integrated application of offensive and defensive actions that deter, detect, preempt, mitigate, or negate threats against or hazards to Air Force air and space operations and assets, based on an acceptable level of risk.]

Operational Risk Management (ORM)—The systematic process of identifying hazards, assessing risks, analyzing risk control measures, making control decisions, implementing risk controls, and supervising and reviewing the process. Commanders accept the residual risks. Also called ORM. (AFDD 1-2) [Water and food production processes involve inherent risk. All members of the vulnerability assessment team are responsible for identifying/prioritizing potential risks and offering control solutions. Risks will be evaluated using the six-step ORM model.] ([Attachment 3](#)).

Attachment 2**RESOURCES**US Army Veterinary Command

Attention: MCVS-FA

Fort Sam Houston, TX 78234-6005

AUTOVON: 471-6547/6524

Commercial: (210) 221-6547/6524

<http://vets.amedd.army.mil/vetcom/index.html>

U.S. Food and Drug Administration

5600 Fishers Lane

Rockville, MD 20857

1-88-INFO-FDA (1-888-463-6332)

In emergency situations, such as a case of foodborne illness or drug product that may have been tampered call agencies emergency number, staffed 24 hours a day

301-443-1240.

<http://www.fda.gov>

U.S. Department of Agriculture

Food Safety and Inspection Service

U.s. Department of Agriculture

Washington, DC 050-3700

For help with meat, poultry, and egg products, call the Meat and Poultry Hotline

1-800-535-4555.(24-7 emergency operations number 202-720-5711)

<http://www.usda.gov>

USAF School of Aerospace Medicine

2602 Louis Bauer Drive

Brooks City Base, Texas 78235-5251

DSN: 240-1946

COMM: 210-536-1946

Internet: <http://wwwsam.brooks.af.mil/>

HQ USAF Services Agency

10100 Reunion Place, Suite 402

San Antonio, Texas 78216-4138

DSN: 487-4945

COMM: (210) 652-4945.

Internet: <http://www-r.afsv.af.mil>

US Food and Drug Administration, Center for Food Safety and Applied Nutrition

Internet: <http://www.nfpa-food.org/members/science/GuidetoFoodSafetyandSecurity.pdf>

USDA Foodborne Illness Educational Information Center

This site includes a HACCP Training Material Site and links to other useful sites.

Internet: <http://www.nalusda.gov/fnic/foodborne/>

Center for Food Safety & Applied Nutrition and HACCP Information

This site includes a variety of useful links to food safety and HACCP issues.

Internet: <http://vm.cfsan.fda.gov/>

An Online HACCP Guide For Retail Operations (e.g., Dining Facility)

<http://vm.cfsan.fda.gov/~dms/hret-toc.html>

Water

Air Force Institute for Operational Health (AFIOH)

2513 Kennedy Circle

Brooks AFB, TX 78235

DSN: 240-5454

COMM: 210-536-5454

Internet: <https://www.afms.mil/afiera/>

Air Force Civil Engineer Support Agency

139 Barnes Drive, Suite 1

Tyndall AFB, FL 32403-5319

DSN 523-6229

COMM: (850) 283-6229

Internet (FSTR Portal): <https://www.my.af.mil/>>My Workspace>Readiness

Internet (Classified SIPR): <http://www.afcesa.tyndall.af.smil.mil/>

American Water Works Association

6666 West Quincy Ave

Denver, CO 80235

COMM: 303-794-7711

Or

1401 New York Ave. NW, Suite 640

Washington, DC 20005

COMM: 202-628-8303

Internet: <http://www.awwa.org>

Nuclear, Biological and Chemical Information (Effects, Detection, Decontamination, etc.)

Air Force Medical Operations Agency

Environmental and Occupation Health Division

110 Luke Avenue, Room 405

Bolling AFB, DC 20332-7050

DSN: 297-4330

COMM: (202) 767-4330

Internet: <https://www.afms.mil/af/sg/index.htm>

HQ Air Force Civil Engineer Support Agency

139 Barnes Dr Suite 1

Tyndall AFB FL 32403-5319

DSN: 523-6229

COM: 850-283-6229

Internet (FSTR Portal): <https://www.my.af.mil/>>My Workspace>Readiness

Internet (Classified SIPR): <http://www.afcesa.tyndall.af.smil.mil/>

US Army Office of the Surgeon General (a site NBC Issues)

Internet: <http://www.nbc-med.org>

Physical Security

HQ Air Force Security Forces Center

1517 Billy Mitchell Blvd, Bldg 954

Lackland AFB, TX 78236-0119

DSN: 945-7506

Commercial: 210-925-7506671-0928

Internet: <http://wwwmil.lackland.af.mil/afsf>

Product intentional contamination or tampering

Federal Bureau of Investigation

Violent Crime and Fugitives Unit

Federal Bureau of Investigation Headquarters

935 Pennsylvania Avenue, NW

Washington D.C. 20535

(Report product tampering or threats to the appropriate federal agency; in emergencies they can be reported to the FBI 24 hour operations center at 202-323-3300)

Operational Risk Management (training)

Department of Transportation

Transportation Safety Institute

P.O. Box 25082

Oklahoma City, OK 73125-5050

(800) 858-2170

Operational Risk Management Application & Integration Course (ORM A&I) – 3 days

ORM Essentials for Leaders (ORM-EL) – 1.5 days

ORM Fundamentals (ORM-F) – 1 day

Attachment 3

OPERATIONAL RISK MANAGEMENT

A3.1. Operational Risk Management. All FW production and acquisition processes involve risk. Personnel at every level are responsible for identifying potential risk and adjusting or compensating appropriately. Operational Risk Management (ORM) applies a disciplined, organized, and logical approach that can be implemented at any level to reduce risk and assure the best safety and security FW possible—from the originating source to the consumer. For the benefit of senior problem solvers, the ORM process will be described here in the context of implementing the Air Force Antiterrorism (AT) Standards at the installation level. Keep in mind, however, that the ORM process applies to all levels responsible for risk reduction in the production, processing, and provision of food and potable water.

A3.2. Parameters. The principles of ORM, regardless of application work within the following parameters:

A3.2.1. Accept No Unnecessary Risk. Unnecessary risk comes without a commensurate return in terms of real benefits or available opportunities. Thus even if a risk is small if it is easy and/or low cost to mitigate, such action should be taken.

A3.2.2. Make Risk Decisions at the Appropriate Level. Making risk decisions at the appropriate level establishes clear accountability. All those accountable for the success or failure of the product must be included in the risk decision process, not just those in supervisory or leadership roles.

A3.2.3. Accept Risk When Benefits Outweigh the Costs. All identified benefits should be compared to all identified costs. As an example, a door lock, lighting and alarms cost less than a 24-hour guard for the door. In most cases, we accept the risk of entry by an aggressor because we have put in redundant controls and the benefits of the 24-hour guard do not outweigh the additional cost.

A3.2.4. Integrate ORM into Planning at all Levels. To effectively apply ORM, managers must dedicate time and resources to incorporate ORM principles into the planning processes. The making of critical risk decisions should be preplanned whenever possible.

A3.3. ORM Process:

A3.3.1. Identify the Hazards. A hazard can be defined as any real or potential condition that can cause mission degradation, injury, illness, or death to personnel, or damage to or loss of equipment or property. Hazards can be due to people (e.g. not using locks) plant/environment (e.g. facility does not have locks) or machines (e.g. automatic locks do not work). At the installation level, the hazards are typically identified through a Food or Water Vulnerability Assessment (Air Force AT Standard 26), which is facilitated by functional experts and includes the assistance and inputs of SG, SF, CEO, CEX, and other relevant stakeholders.

A3.3.2. Assess the Risk. Risk is the probability and severity of loss or adverse mission impact from exposure to the hazard. Assessment is the application of quantitative or qualitative measures to determine all levels of risk associated with a specific hazard. This step defines the probability, severity, and exposure of a mishap that could result from the hazard.

A3.3.2.1. Assess Hazard Probability: Determine the probability that the hazard will cause a negative event (severity). Use the cumulative probability of all causative factors. Probability may be

determined through estimates or actual numbers. Use experience, analysis, and evaluation of historical data when possible. Probability categories are frequently, likely, occasional, seldom, unlikely.

A3.3.2.2. *Assess Hazard Severity:* Determine the severity of the hazard in terms of its potential impact on people and our mission for water safety and security. Severity assessment should be based upon the worst possible outcome that can reasonably be expected. Severity categories are catastrophic, critical, moderate, and negligible.

A3.3.2.3. *Assess Hazard Exposure:* Surveys, inspections, observations, and mapping tools can help determine the level of exposure to the hazard and record it. This can be expressed in terms of time, proximity, volume, or repetition. Additionally, it may serve as a guide for devising control measures to limit exposure.

A3.3.2.4. When implementing AT Standards at the installation level, probability is quantified through a Threat Assessment (TA), which is required by AT Standard 15 to be conducted at least annually by the installation Threat Working Group. The process may also be initiated when a specific threat is perceived. Severity and Exposure are determined by a Food or Water Vulnerability Assessment (VA), which is required by AT Standard 26. The VA must consider the ever-present "insider" threat, as well as worst-case scenarios. Once defined, these measurements can be integrated into an operational risk assessment matrix that allows us to "rack and stack" or prioritize the hazards relative to their risk:

A3.3.3. Analyze Risk Control Measures. Effective control measures reduce one of the three components (probability, severity, or exposure) of risk. Analyze risk control measures for the potential hazards that could be introduced into the operation and were identified through the risk assessment step above. Action is taken to investigate specific strategies and tools that reduce, mitigate, or eliminate risk. Starting with the highest risk identify as many risk control options as possible for all the risks. Effective control measures reduce or eliminate one of the three components (probability, severity, or exposure) of risk. The following are risk control options:

A3.3.3.1. *Reject-*We can and should refuse to take a risk if the overall costs of the risk exceed its benefits to the operation.

A3.3.3.2. *Avoid-*Avoiding risk altogether requires canceling or delaying the task or operation, but is an option that is rarely exercised due to operational need.

A3.3.3.3. *Delay-*It may be possible to delay a risk. If there is no time deadline or other operational benefit to speedy accomplishment of a risky task, then it is often desirable to delay the acceptance of risk.

A3.3.3.4. *Transfer-*Risk transfer does not change probability or severity of the hazard, but it may decrease the probability or severity of the risk actually experienced by the individual or organization accomplishing the task or operation. As a minimum the risk to the original individual or organization is greatly decreased or eliminated because the possible losses or costs are shifted to another entity.

A3.3.3.5. *Spread-* Risk is commonly spread out by either increasing the exposure distance or by lengthening the time between exposure events.

A3.3.3.6. *Compensate*-We can create redundant capability in certain special circumstances. An example is to plan for a back up, and then when a critical piece of equipment or other item is damaged or destroyed we have capabilities available to continue the operation.

A3.3.3.7. *Reduce*-The overall goal of ORM is to plan operations or design systems that do not contain hazards. A proven order of precedence for dealing with hazards and reducing the resultant risks is:

A3.3.3.7.1. *Plan or Design for Minimum Risk*. Primarily a CE issue, design the system to eliminate hazards. Without a hazard there is no probability, severity or exposure. For instance the back dock for restaurants should be designed with secure delivery doors that trucks can back up to and unload their products securely on the dock and not enter the facility. The restaurant staff would move products directly from dock to storage with entry doors in dock area. This prevents any aggressor from entering the dock, delivery truck or storage areas.

A3.3.3.7.2. *Incorporate Safety Devices*. Reduce risk through the use of design features or devices.

A3.3.3.7.3. *Provide Warning Devices*. Warning devices may be used to detect an undesirable condition and alert personnel.

A3.3.3.7.4. *Develop Procedures and Training*. Where it is impractical to eliminate hazards through design selection or adequately reduce the associated risk with safety and warning devices, procedures and training should be used.

A3.3.4. *Make Control Decisions*. Decision makers at the appropriate level choose controls based on analysis of overall costs and benefits. The course of action choices include:

A3.3.4.1. *Accept the plan as is*: Benefits outweigh risks (costs), and total risk is low enough to justify the proposed action if something goes wrong. The decision-maker must allocate resources to control risk. Available resources are time, money, personnel, and/or equipment.

A3.3.4.2. *Modify the plan to develop measures to control risk*: The plan is valid, but the current concept does not adequately minimize risk. Further work to control the risk is necessary before proceeding.

A3.3.4.3. *Elevate the decision to a higher authority*: The risk is too great for the decision-maker to accept, but all measures of controlling risk have been considered. If the operation is to continue, a higher authority must make the decision and accept the risk.

A3.3.5. *Implement Risk Controls*. Once control strategies have been analyzed, an implementation strategy needs to be developed and then applied by management and the work force. Implementation requires commitment of time and resources.

A3.4. Preventive Measures. In addition to physical risk control security measures, improvements in routine operations can have a significant impact on reducing threats to food and drinking water.

A3.4.1. *Food*: Routine sanitation can be the most valuable tool to mitigate risk from both intentional and non-intentional biologic contamination. Preventive measures should be initiated and graduated according to the FPCON level. Preventive measures should be proportionate to the current level and based upon existing Food Vulnerability Assessment.

A3.4.2. Water: Routine surveillance and sampling can be the most valuable tool to mitigate risk from both intentional and non-intentional radiological, biological, or chemical contamination. Establishment of normal characteristics of the water system are critical to determining if there has been an intentional or non-intentional change to the water characteristics. Preventive measures should be initiated and graduated according to the FPCON level. Preventive measures should be proportionate to the current level and based upon existing Water Vulnerability and Risk Assessment

Attachment 4

FORCE PROTECTION CONDITIONS

A4.1. FPCON Measures. Listed below are examples of FW FPCON measures that should be implemented as the FPCON increases:

A4.1.1. **FPCON-Alpha:**

- A4.1.1.1. Initiate FW protection ORM procedures
- A4.1.1.2. Brief personnel on FW protection ORM procedures
- A4.1.1.3. Report any unusual activity

A4.1.2. FPCON-Bravo. (FPCONs Bravo, Charlie, Delta levy requirements upon Security Forces units that may have to be satisfied by owner user organizations; owner-user must provide the manpower or request base detail support for increased security requirements mentioned in [Attachment 4](#))

- A4.1.2.1. Institute roving patrols and vary shift changes
- A4.1.2.2. Increase inspection/patrol frequency of FW access points
- A4.1.2.3. Inspect FW storage areas and containers

A4.1.3. **FPCON-Charlie:**

- A4.1.3.1. Increase parameter-monitoring frequency (e.g., food sampling, temperature, content, FAC, pH, turbidity, conductivity, flow, pressure, etc.)
- A4.1.3.2. Initiate contingency monitoring and surveillance for biological and chemical agents (e.g, heterotrophic plate counts, total colioforms, volatile organic compounds, etc. based on local water and threat conditions)
- A4.1.3.3. Suspend contractors/off-installation users from tapping into installation water system
- A4.1.3.4. Require identification for entry into all FW storage and distribution centers
- A4.1.3.5. Institute Sign In/Sign Out logs at access control/entry points
- A4.1.3.6. Limit/inspect all personal items

A4.1.4. **FPCON-Delta:**

- A4.1.4.1. Provide guards/inspectors (institute 2-man control) at all FW sources or distribution points unless adequately monitored by IDS
- A4.1.4.2. Limit food handling and preparation to US/DoD employees
- A4.1.4.3. Consider closing down all non-essential eating establishments IAW base support plan
- A4.1.4.4. Provide guards/inspectors (institute 2-man patrol) at all FW sources or distribution points
- A4.1.4.5. Search all food handlers and preparers
- A4.1.4.6. Post owner user personnel